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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Lars KARLSSON, Wai-Ping LEUNG, Per A. PETERSON and Christopher ALFONSO		
Serial No.:	Not Assigned	Art Unit:	1632
Filed:	28 February 2002	Examiner:	BAKER, A.
For:	**H2-O MODIFIED TRANSGENIC ANIMALS**		

Assistant Commissioner for Patents
Box: PATENT APPLICATION
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

Applicants respectfully request the Examiner to enter the following Preliminary Amendment.

AMENDMENT

In the Specification:

At page 1, line 3, the RELATED APPLICATIONS section is amended to read as follows:

> "This application is a continuation of copending application serial number 09/516,390, filed 1 March 2000, which is a continuation-in-part of application serial number 09/250,898 filed 16 February 1999, now abandoned, which is a non-provisional application of provisional application serial number 60/074,847, filed 17 February 1998".

In the Claims:

Claims 1 and 2 are cancelled.

New claims 3 through 8 are added as follows:

3. A transgenic mouse whose somatic and germ cells comprise a disruption in an endogenous H2-Oa gene, wherein disruption is generated by targeted replacement with a non-functional H2-Oa gene, and wherein said disruption results in said mouse having an increase in the amount of serum IgG1 at 10 months of age as compared to wild-type H2-Oa mice.

4. The mouse of claim 3, wherein said mouse is fertile and transmits the non-functional H2-Oa gene to its offspring.

5. The mouse of claim 3, wherein the non-functional H2-Oa gene has been introduced into an ancestor of the mouse at an embryonic stage by microinjection of altered embryonic stem cells into mouse blastocysts.

6. A method for producing a transgenic mouse whose somatic and germ cells comprise a disruption in an endogenous H2-Oa gene, wherein said disruption is generated by targeted replacement with a non-functional H2-Oa gene, said method comprising:
   a) introducing a H2-Oa gene targeting construct comprising a selectable marker sequence into a mouse embryonic stem cell;
   b) introducing said mouse embryonic stem cell into a mouse blastocyst;
   c) transplanting said blastocyst into a recipient mouse;
   d) allowing said blastocyst to develop to term;
   e) identifying a transgenic mouse whose genome comprises a disruption of an endogenous H2-Oa gene in at least one allele; and

f) breeding the mouse of step (e) to obtain a transgenic mouse whose genome comprises a homozygous disruption of the endogenous H2-Oa gene,

wherein said disruption results in said mouse having an increase in the amount of serum IgG1 by ten months of age as compared to wild-type H2-Oa mice.

7. The method of claim 6 wherein the introducing of step (a) is by electroporation or microinjection.

8. An isolated cell line derived from the transgenic mouse of claim 3.

Respectfully submitted,

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John W. Wallen, III
Reg. No. 35,402
Attorney for Applicant(s)

Johnson & Johnson
One Johnson & Johnson Plaza
New Brunswick, New Jersey 08933-7003
(858) 784 - 3239
DATE: 28 February 2002

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

At page 1, line 3, the RELATED APPLICATIONS section is amended to read as follows:

"~~This application is a continuation in part of application of co-pending application serial number 09/250,898, filed 16 February 1999, which is a non-provisional application of provisional application serial number 06/074,847, filed 17 February 1998, abandoned~~ This application is a continuation of copending application serial number 09/516,390, filed 1 March 2000, which is a continuation-in-part of application serial number 09/250,898 filed 16 February 1999, now abandoned, which is a non-provisional application of provisional application serial number 60/074,847, filed 17 February 1998".

In the Claims:

Claims 1 and 2 are cancelled.

New claims 3 through 8 are added as follows:

3. A transgenic mouse whose somatic and germ cells comprise a disruption in an endogenous H2-Oa gene, wherein disruption is generated by targeted replacement with a non-functional H2-Oa gene, and wherein said disruption results in said mouse having an increase in the amount of serum IgG1 at 10 months of age as compared to wild-type H2-Oa mice.

4. The mouse of claim 3, wherein said mouse is fertile and transmits the non-functional H2-Oa gene to its offspring.

5. The mouse of claim 3, wherein the non-functional H2-Oa gene has been introduced into an ancestor of the mouse at an embryonic stage by microinjection of altered embryonic stem cells into mouse blastocysts.

6. A method for producing a transgenic mouse whose somatic and germ cells comprise a disruption in an endogenous H2-Oa gene, wherein said disruption is generated by targeted replacement with a non-functional H2-Oa gene, said method comprising:

   a) introducing a H2-Oa gene targeting construct comprising a selectable marker sequence into a mouse embryonic stem cell;

   b) introducing said mouse embryonic stem cell into a mouse blastocyst;

   c) transplanting said blastocyst into a recipient mouse;

   d) allowing said blastocyst to develop to term;

   e) identifying a transgenic mouse whose genome comprises a disruption of an endogenous H2-Oa gene in at least one allele; and

   f) breeding the mouse of step (e) to obtain a transgenic mouse whose genome comprises a homozygous disruption of the endogenous H2-Oa gene,

wherein said disruption results in said mouse having an increase in the amount of serum IgG1 by ten months of age as compared to wild-type H2-Oa mice.

7. The method of claim 6 wherein the introducing of step (a) is by electroporation or microinjection.

8. An isolated cell line derived from the transgenic mouse of claim 3.